

## REMARKS

Claim 1 calls for arranging a plurality of heaters to provide a temperature gradient across an array of waveguides. Thus, the temperature gradient is provided by a plurality of heaters.

The cited reference to Barbarossa teaches away from what is claimed. He suggests using a single CO<sub>2</sub> laser 510 to selectively apply heat to one waveguide of an array of waveguides which are unlabeled in Figure 5.

Barbarossa also teaches away from the claimed invention in his discussion of the prior art. There, he teaches using a single heater associated with a single core in Figure 4C. There is no teaching of any plurality of heaters for a plurality of cores so that a temperature gradient could be achieved across an array of waveguides. For example, in connection with the description of Figure 4C in column 6, line 36, it is stated that known phase control techniques employ “a thin film heater mounted above the waveguide whose phase is to be modified.” This discusses changing the phase of a single waveguide and not providing a temperature gradient across an array of waveguides using a plurality of heaters. Nothing of the sort is ever suggested. Therefore, the discussion of the prior art within Barbarossa teaches away from the claimed invention, just like the preferred embodiment shown in Figure 5.


It is clear that, in Barbarossa’s preferred embodiment, only one waveguide is heated at a time, as explained in column 7, lines 46-50.

The discussion in paragraph 2 of the office action may be read to suggest that Figure 5, using the CO<sub>2</sub> laser 510 and Figure 4C operate together. Instead, it is clear that they are alternative arrangements, Figure 4C being the prior art and Figure 5 being the asserted invention. There is no array of waveguides in Figure 4C and, even if Figure 4D is brought into play, there is no suggestion of using a plurality of heaters in the arrangement of Figure 4D. Thus, there can be no teaching of the concept of using a plurality of heaters to provide a temperature gradient across an array of waveguides.

Therefore, reconsideration is respectfully requested.

Respectfully submitted,

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Timothy N. Trop, Reg. No. 28,994  
TROP, PRUNER & HU, P.C.  
8554 Katy Freeway, Ste. 100  
Houston, TX 77024  
713/468-8880 [Phone]  
713/468-8883 [Fax]

Attorneys for Intel Corporation